Name:

PCEP June AND July 2002
12 Lead ECG/Acute Myocardial Infarction
Roxy Barnes

1. Which part of the heart is seen by the following ECG leads?

Lead I`	aVR	V1	V4
Lead II	aVL	V2	V5
Lead III	AVF	V3	V6

2. What coronary arteries supply these areas of the myocardium?

Left Ventricle - Right Ventricle -

Septal Wall - Anterior Wall-

Lateral Wall - Inferior Wall

3. True or False: A normal ECG does not rule out an Acute Myocardial Infarction?

4. During 12 Lead ECG Interpretation, describe the significance of the following:

A. ST elevation:

B. ST depression/Twave inversion:

C. Abnormal Q wave presence:

5. When should you suspect a Right Ventricular MI?

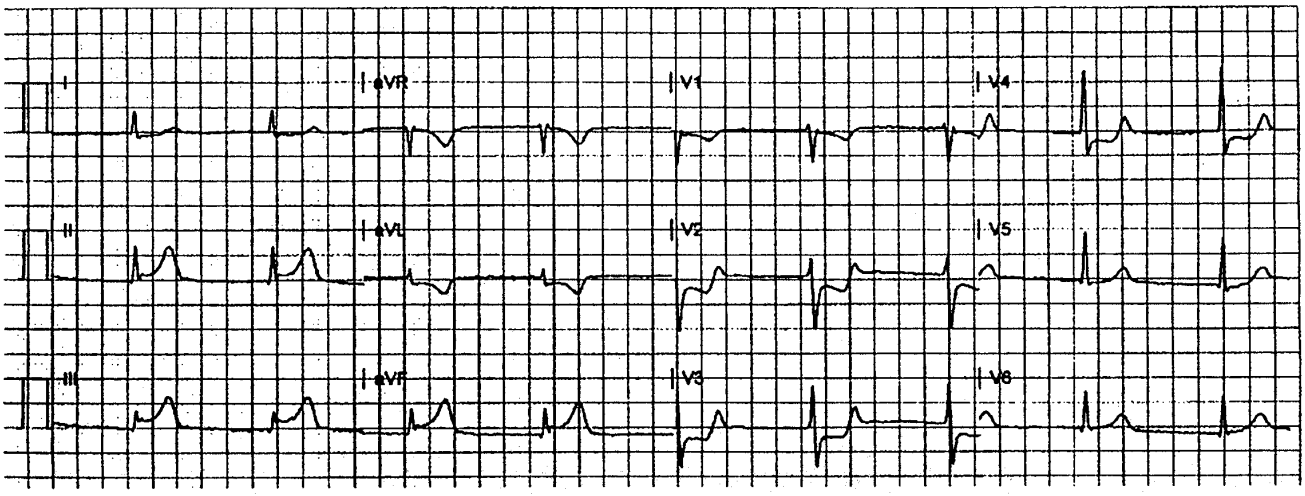
6. What is the current protocol for treating Right Ventricular MI?

Case 1

A 54 y/o male complaining of an acute onset of severe chest pain and shortness of breath. Pain is radiating down his left arm and left jaw. The pain had started about an hour ago while lying on the couch, which initially felt like indigestion and was unrelieved by anti -acids. Patient denies any history of smoking but his Father and Grandfather have died of heart attacks. No past medical history, no medications, no allergies.

EXAM: lying on the couch, alert/conscious and complaining of severe nausea. Skin is pale, cool and very diaphoretic. Lung sounds are clear and no pedal edema is evident.

VITALS: R 40, P 96, BP 152/90, BS 86, SpO2 98 on room air.



What is your diagnosis?

What is your Treatment Plan?

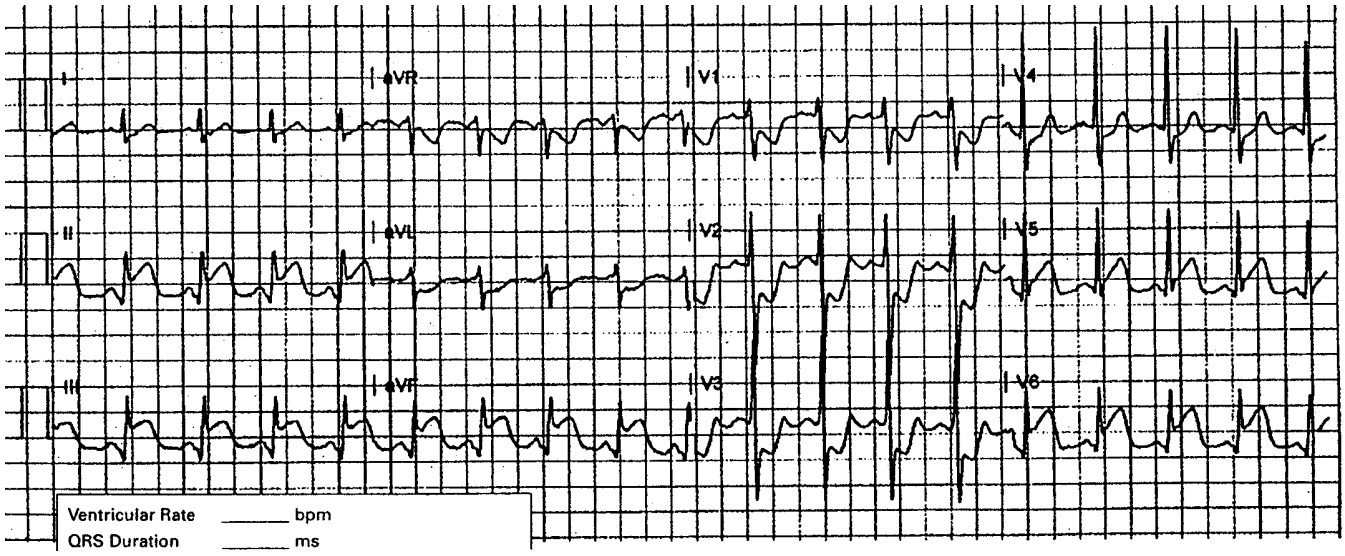
Is this Anterior or Posterior?

Case 2

A 55 ylo male teacher who is found sitting in his office. He reports feeling a sense of doom and complains of central chest pain a 9 out of 10. He denies dyspnea and other symptoms. Past history includes hypertension and hyperlipidemia. Although he takes medication for these conditions regularly as prescribed, he cannot recall the names of his medicines.

EXAM: Awake and anxious, skin pale, cool and wet. Lungs are clear bilaterally.

VITALS: RR 20, P 100, BP 180/90, BS 108, SpO2 94% on room air.



What is your diagnosis?

What is your Treatment Plan?

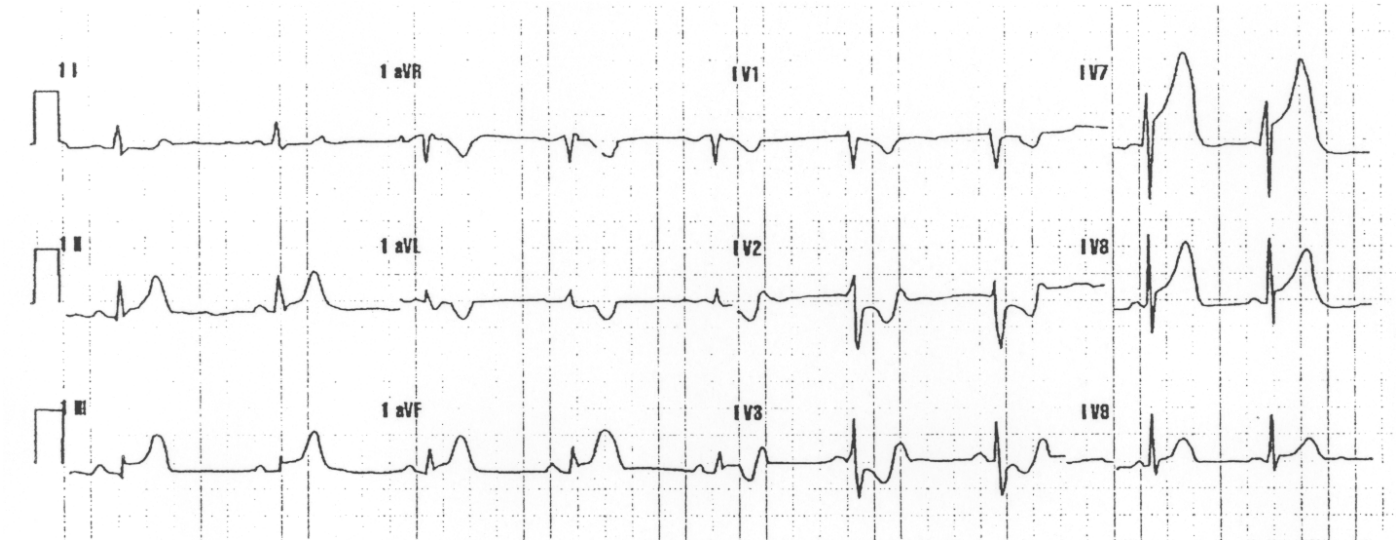
Is this inferior/lateral or Septal?

Case 3

A 60 y/o female complaining of dizziness, weakness and dyspnea. Patient stated that symptoms have persisted for over an hour. Symptoms are worsened by standing. Patient denies any chest pain and has been an Insulin dependent Diabetic for over 30 years. Patient has no allergies and her only medication is Humalin twice a day.

EXAM: Patient sitting upright in a chair, alert/conscious and very anxious. Skin is pale, cool and moist. Lung sounds are clear and equal.

VITALS: RR 28, P 104, BP 98/54, BS 130, SpO2 97% on room air.



1. What is your diagnosis?

2. **What is your Treatment Plan?**

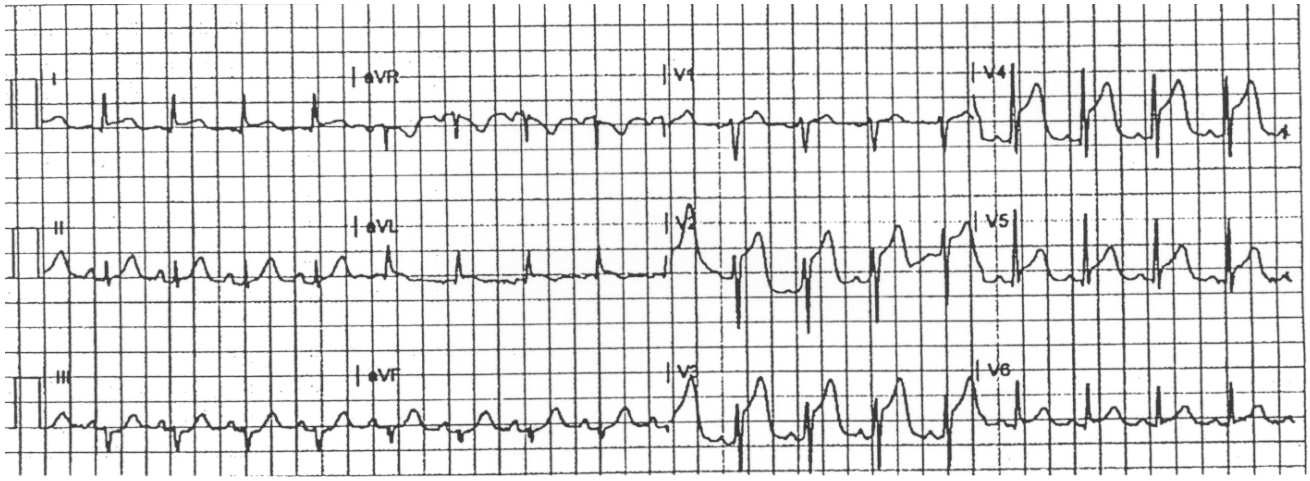
3. Is this Anterior or Posterior?

Case 4

A 67 *y/o* female complaining of a mild ache in her jaw and pain in both upper arms for about two hours. Her family called 911 when she became weak and diaphoretic. She complains of dyspnea on your arrival, her medical history is excellent; she has no serious risk factors or family history of CAD. No Medications and No known allergies.

EXAM: Sitting upright, alert and appears in some distress. Skin is pale, cool and very wet. Her jugular veins are slightly distended, lungs are clear, no pedal edema is evident.

VITALS: R 36, P 100, BP 120/60, BS 99, SpO2 86 on 4 LPM.



What is your diagnosis?

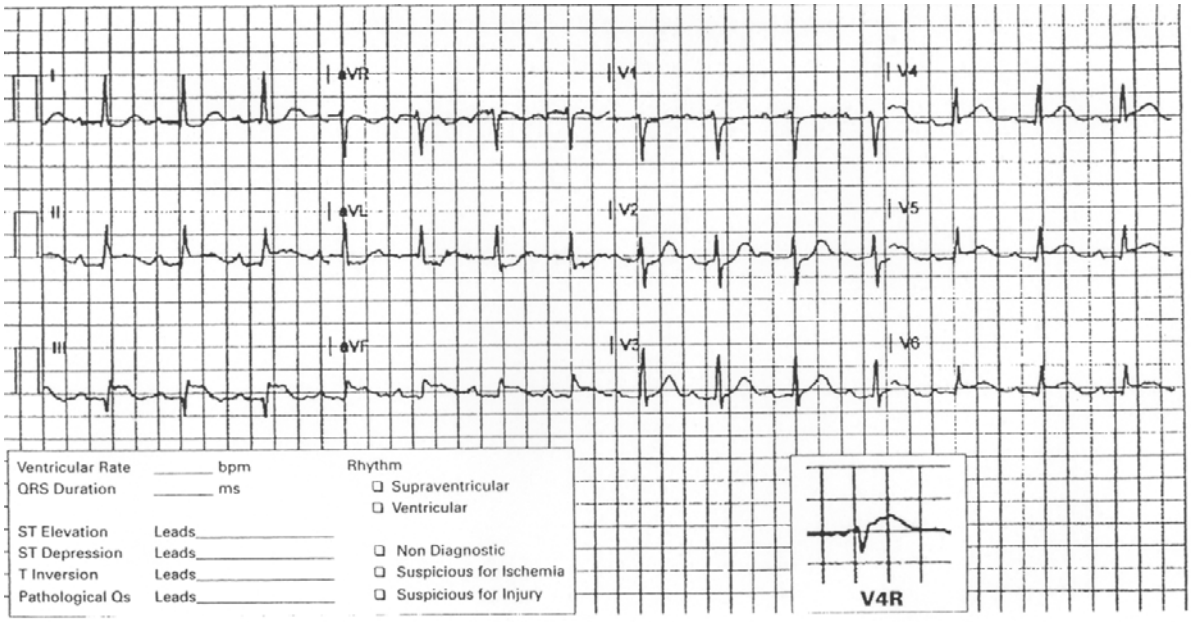
What is your Treatment Plan?

Would Lead V4R be useful?

Case 4

continued

You have moved lead V 4 over to the right side and run a second 12 lead ECG. Your Patient remains symptomatic.



What is your diagnosis?

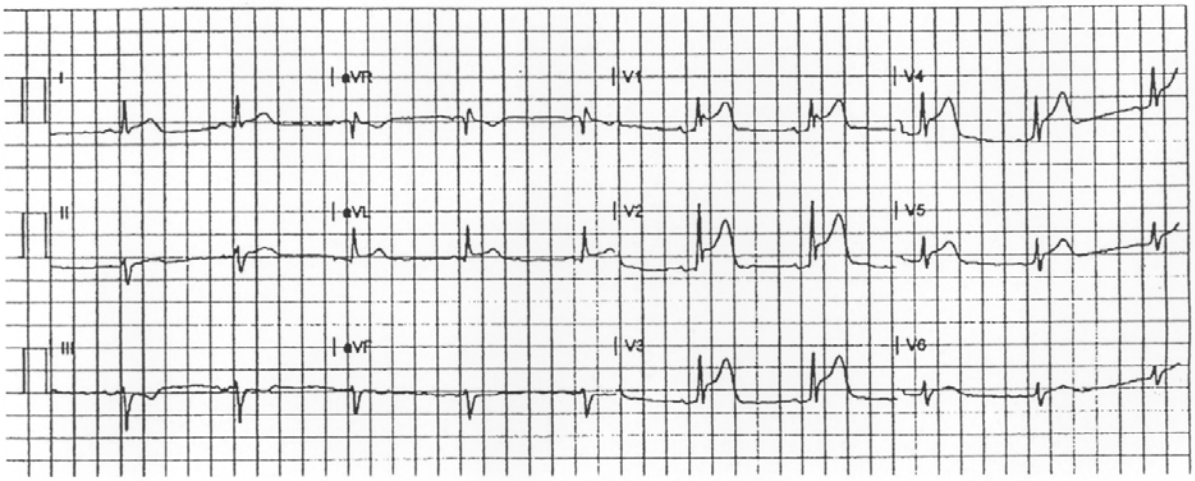
What is your Treatment Plan?

Case 5

A 48 y/o male complaining of dull central chest pain a 2 out of 10 that started at rest. Patient is overweight and has been a pack a day smoker for over 20 yrs. Patient has no medical history, takes no medication and has no known allergies.

EXAM: Alert/conscious with increased dyspnea. Lungs reveal expiratory wheezes, skin pale, cool and diaphoretic. No pedal edema noted.

VITALS: RR 24, P 80, BP 180/110, BS 110, SpO2 94% on room air.



1. What is your diagnosis?

2. What is your Treatment Plan?

3. Is this Septal or Lateral?